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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/802,420

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Nancy G. Woodbridge

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EXAMINER

NGUYEN, THAN VINH

ART UNIT

PAPER NUMBER

2187

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,420

Applicant(s)

WOODBRIIDGE ET AL.

Examiner

Than Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-19 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 7-11,16-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. As to claim 7, it is unclear to how the term “anticipated to be subsequently accessed”, without knowing the criteria involved, can be realized. Applicant has not indicated what is considered “anticipated” and what is not anticipated. One of ordinary skills cannot make and/or use the claimed invention without knowing this criteria. Therefore, this claim language is vague and indefinite, as it does not clearly define scope of the claimed invention. Claims 8-11 are also rejected for incorporating this deficiency.

5. As to claim 16, it is unclear as what is mean by “the timer expiring”. There are many definitions of the term “expire”. Applicant should modify the claim language to clearly indicate what is being claimed.

6. As to claim 17-19, the claimed function “developing code for execution” is vague. Is Applicant claiming software that writes other software? The phrase “the code to extend between the first and second memory banks” is also indefinite. Is the code developed stored in the first

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and second banks or does the code, when executed, uses the first and second banks. Clarification is required.

7. Claim 17 recites the limitation "said code execution" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-3,5-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Ma (US 7,028,200).

As to claim 1,2,3,7-14:

9. Ma teaches an adaptive memory power management system. Ma teaches an apparatus having a processor (CPU 50) and its method of operation comprising: a first memory bank and a second memory bank capable of having an operational state and a low power state (DRAM memory 60; Fig. 1); a memory controller for allowing access request, coupled to the first and second memory banks and comprising a comparator to determine if a current address location in the first memory bank is within a predefined number of address locations from an address location in the second memory bank (memory controller 40 determines if access of a bank is anticipated to be accessed next; 5/7-25); and a memory power controller coupled to the second memory bank to change the second memory bank from the low power state to the operational state resultant to the comparator determining that the current address location is within the

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predefined number of address locations (power management module 5 powers down memory are not expected to be accessed soon; 3/5-30; 5/7-25, 55-58).

As to claim 5,16:

10. Ma teaches placing the second memory bank in the low power state resultant to the second memory bank not being accessed within a predetermined interval (monitor CPU and memory usage to power down memory during idle periods; abstract; 2/18-26; 2/48-52).

As to claim 6,15:

11. Ma teaches a programmable timer to indicate the predetermined interval (monitoring and storing utilization/idle time; 2/18-26; 48-52).

As to claim 17:

12. Ma teaches instructions, which when executed by a processing platform, cause said processing platform to perform operations comprising: developing code for execution, the code to extend between first and second memory bands during said execution; and determining a threshold address for the first memory bank, the threshold address to be used to indicate that access to the first memory bank at an address above the threshold address during said code execution is to indicate that access to the second memory bank is anticipated to occur within a predetermined interval (determines if access of a bank is anticipated to be accessed next; 5/7-25 and powers down memory are not expected to be accessed soon; 3/5-30; 5/7-25, 55-58).

As to claim 18:

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13. Ma teaches determining is based on: an estimated time for the second memory bank to transition from a low power state to an operational state; and an estimated time for said code execution to result in access to the second memory bank after accessing the threshold address (determine utilization/idle time; abstract; 2/18-26; 2/48-52).

As to claim 19:

14. Ma teaches placing instructions into the code that, when executed, will cause the second memory bank to go into an operational state (powering down memory; 3/5-30; 5/7-25, 55-58).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ma (US 7,028,200).

As to claim 4:


Ma teaches the memory being volatile memory but does not specifically teach the volatile memory comprises static random access memory. It is well-known in the memory art to use SRAM in place of volatile memory to prevent data loss upon the lost of power. Thus it would have been obvious to one of ordinary skills in the art at the time of the invention to substitute Ma's volatile memory for static SRAM so that data would be preserved during a power outage.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Than Nguyen whose telephone number is 571-272-4198. The examiner can normally be reached on 8am-3pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Than Nguyen
Primary Examiner
Art Unit 2187